AMENDMENTS TO THE CLAIMS

(IN REVISED FORMAT COMPLIANT WITH THE PROPOSED REVISION TO 37 CFR 1.121)

1. (CURRENTLY AMENDED) A system comprising:

a ~~frame~~ formatter configured to format a plurality of data frames of a transport stream by inserting a plurality of synchronization data to produce a block stream;

an error correction encoder configured to encode said block stream to produce an error protected block stream;

an interleave module configured to interleave said error protected block stream to produce a data stream;

an inserter configured to insert a synchronization signal into said data stream; and

a turbo encoder configured to encode said data stream to produce an encoded stream~~,~~

~~a bit-to-symbol mapper configured to map said encoded stream to produce a symbol stream capable of at least eight different symbols; and~~

~~a modulator configured to modulate said symbol stream~~.

2. (ORIGINAL) The system according to claim 1, wherein said transport stream defines two high definition television programs substantially simultaneously.

3. (ORIGINAL) The system according to claim 1, wherein said turbo encoder comprises:

a first systematic encoder configured to encode said data stream to produce a first redundant stream;

a bit interleave module configured to interleave said data stream to produce a second data stream; and

a second systematic encoder configured to encode said second data stream to produce a second redundant stream.

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4. (ORIGINAL) The system according to claim 3, wherein said turbo encoder further comprises:

a puncture module configured to puncture bits from said first redundant stream and said second redundant stream to produce a redundant portion of said encoded stream.

5. (CANCELED)

6. (CURRENTLY AMENDED) A method for transmitting comprising the steps of:

(A) formatting a plurality of data frames of a transport stream by inserting a plurality of synchronization data to produce a block stream;

(B) ~~turbo~~ error correction encoding said block stream to produce an error protected block stream;

(C) interleaving said error protected block stream to produce a data stream;

(D) inserting a synchronization signal into said data stream; and

~~(D)~~ (E) turbo encoding said data stream to produce an encoded stream~~;~~

~~(E) mapping said encoded stream to produce a symbol stream capable of at least eight different symbols; and~~

~~(F) modulating said symbol stream~~.

7. (ORIGINAL) The method according to claim 6, wherein said transport stream defines two high definition television programs substantially simultaneously.

8. (ORIGINAL) The method according to claim 6, further comprising the steps of:

encoding said data stream to produce a first redundant stream;

interleaving said data stream to produce a second data stream; and

encoding said second data stream to produce a second redundant stream.

9. (ORIGINAL) The method according to claim 8, further comprising the step of:

puncturing bits from said first redundant stream and said second redundant stream to produce a redundant portion of said encoded stream.

10. (CANCELED)

11. (CURRENTLY AMENDED) A system comprising:

~~a demodulator configured to demodulate a signal to produce a symbol stream capable of at least eight different symbols;~~

a converter configured to convert ~~said~~ a symbol stream comprising a plurality of symbols into an encoded stream;

a turbo decoder configured to decode said encoded stream to produce ~~an~~ a data stream; and

a synchronization remover configured to remove a synchronization signal from said data stream

~~a de-interleave module configured to arrange said data stream into an error protected block stream;~~

~~an error correction decoder configured to decode said error protected block stream into a block stream; and~~

~~a formatter configured to format said block stream into a transport stream~~.

12. (CURRENTLY AMENDED) The system according to claim 11, wherein said symbol stream ~~signal~~ defines two high definition television programs substantially simultaneously.

13. (ORIGINAL) The system of claim 11, wherein said turbo decoder comprises:

a plurality of decode modules configured to decode said encoded stream to produce said data stream.

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14. (ORIGINAL) The system according to claim 13, wherein said turbo decoder further comprises:

a de-puncture module configured to de-puncture a redundant portion of said encoded stream.

15. (CANCELED)

16. (CURRENTLY AMENDED) A method for receiving comprising the steps of:

~~(A) demodulating a signal to produce a symbol stream capable of at least eight different symbols;~~

~~(B)~~ (A) converting ~~said~~ a symbol stream comprising a plurality of symbols into an encoded stream;

~~(C)~~ (B) turbo decoding said encoded stream to produce ~~an~~ a data stream; and

(C) removing a synchronization signal from said data stream

~~(D) arranging said data stream into an error protected block stream;~~

~~(E) decoding said error protected block stream into a block stream; and~~

~~(F) formatting said block stream into a transport stream~~.

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17. (CURRENTLY AMENDED) The method according to claim 16, wherein said ~~transport~~ symbol stream defines two high definition television programs substantially simultaneously.

18. (CURRENTLY AMENDED) The method according to claim 16, wherein step (B) further ~~comprising the step~~ comprises the sub-step of:

decoding said encoded stream in a plurality of modules to produce said data stream.

19. (ORIGINAL) The method according to claim 18, further comprising the step of;

de-puncturing a redundant portion of said encoded stream.

20. (CANCELED)

21. (NEW) The system according to claim 1, further comprising:

a bit-to-symbol mapper configured to map said encoded stream to produce a symbol stream carrying a plurality of symbols each consisting of two error protected bits and one redundant bit.

22. (NEW) The method according to claim 6, wherein said turbo encoding has a bit error rate not greater than 2 errors per 10,000 bits.

23. (NEW) The system according to claim 11, further comprising:

a demodulator configured to demodulate a signal to produce said symbol stream wherein each of said symbols consists of two error protected bits and one redundant bit.

24. (NEW) The method according to claim 16, wherein said turbo decoding has a bit error rate not greater than 3 errors per 100,000 bits.